CLAIMS

We claim:

1. A method of designing a new anti-CMV drug comprising:

(a) analyzing the binding of glycoprotein O to a glycoprotein O receptor, and

(b) designing a candidate drug that would competitively interfere with glycoprotein O binding to glycoprotein O receptor and

(c) showing that the candidate drug competitively inhibits glycoprotein O binding to glycoprotein O receptor.

2. The method of claim 1 wherein the candidate drug is a peptide.

3. A method of screening anti-CMV drugs comprising the step of determining whether a candidate drug interferes with glycoprotein O-containing complex binding to a cell surface.

4. The method of claim 3 wherein candidate drugs are evaluated for their ability to block CMV entity into a host cell.

5. The method of claim 4, wherein the evaluation comprises analyzing the inhibition of the major early protein of HCMV.

6. A vaccine effective to diminish CMV infection comprising at least a fragment of glycoprotein O polypeptide in combination with a pharmacologically acceptable carrier.

7. The vaccine of claim 6 wherein the fragment is at least 9 amino acids in length.

8. The vaccine of claim 4 wherein the polypeptide has a deletion of all or a portion of the transmembrane anchor region.

9. A method of vaccinating a patient against CMV infection comprising administering the vaccine of claim 4 to the patient.

10. The method of claim 9 additionally comprising a step of administering at least one vaccine comprising at least a fragment of a glycoprotein selected from the group of CMV glycoprotein H, CMV glycoprotein L, and CMV glycoprotein B.

11. An anti-CMV drug comprising of at least a fragment of CMV glycoprotein O and a pharmacologically acceptable carrier.

12. The drug of claim 11 wherein the drug comprises full-length CMV glycoprotein O.

13. A method of diminishing CMV infection comprising the step of introducing anti-CMV glycoprotein O antibodies into a CMV-infected subject.

14. An anti-CMV glycoprotein O antibody.